WHAT IS CLAIMED IS:

1. A process for preparing a compound of formula (V):

wherein * is a chiral center that can be designated as a R- or S-stereocenter, R_1 is hydrogen or a nitrogen-protecting group (R_p) , or a salt thereof, comprising the steps of:

1a) providing a compound of formula (II):

wherein * is as previously defined and R_p is a nitrogen-protecting group;

1b) treating a compound of formula (II) with a sulfonylating reagent to obtain a compound of formula (III):

wherein * and R_p are as previously defined and R₂ is an unsubstituted alkyl, substituted alkyl, unsubstituted aryl, or substituted aryl group;

1c) reacting the $-O-S(O)_2-R_2$ group in a compound of formula (III) with an alkali metal triethylborohydride to obtain the desired enantiomer of a compound of formula (V):

wherein * and R₁ are as previously defined.

- 2. The process according to claim 1, wherein the compound formula (II) is provided by a process comprising the steps of:
 - 2a) providing a desired enantiomer of prolinol having the formula (I):

wherein * denotes a chiral center that can be designated as a R- or S-stereocenter; and

- 2b) protecting the nitrogen atom of the amine group in a compound of formula (I) with a nitrogen-protecting group to obtain a compound of formula (II).
- 3. The process according to claim 1, wherein R_p in the compound of formula (II) is selected from the group consisting of acetyl, benzoyl, benzyl, benzyloxycarbonyl (Cbz), formyl, phenylsulfonyl, pivaloyl, tert-butoxycarbonyl (Boc), tert-butylacetyl, and triphenylmethyl (trityl).
 - 4. A process for preparing a compound of formula (V):

wherein R₁ is hydrogen or a nitrogen-protecting group, or a salt thereof, comprising the steps of:

4a) providing a compound of formula (III):

wherein * denotes a chiral center that can be designated as a R- or S-stereocenter, R_p is a nitrogen-protecting group, and R_2 is an unsubstituted alkyl, substituted alkyl, unsubstituted aryl, or substituted aryl group, and treating the compound of formula (III) with an alkali metal iodide salt to obtain a compound of the formula (IV):

wherein * and R_p are as defined for a compound of formula (III); and

4b) hydrogenating a compound of formula (IV) to obtain a desired enantiomer of a compound of formula (V):

wherein * and R₁ are as previously defined.

5. The process according to claim 4, wherein step 4a) is substituted with a step comprising reacting a compound of formula (II):

wherein * is as previously defined and R_p is a nitrogen-protecting group, with an iodine reagent to obtain a compound of formula (IV).

- 6. A process for preparing a N-protected-2-methylpyrrolidine compound, comprising the steps of:
- 6a) treating the hydroxy group of an N-protected prolinol with a sulfonylating reagent to obtain an N-protected-2-(alkyl- or aryl)sulfonate ester of prolinol; and
- 6b) reacting the N-protected-2-(alkyl- or aryl)sulfonate ester of prolinol with an alkali metal triethylborohydride to obtain N-protected-2-methylpyrrolidine.
- 7. A process for preparing a N-protected-2-methylpyrrolidine compound, comprising the steps of:
- 7a) reacting a N-protected prolinol with an iodine reagent and or reacting a N-protected-2-(alkyl- or aryl)sulfonate ester of prolinol with an iodide salt to obtain an N-protected-2-iodomethylpyrrolidine; and
- 7b) hydrogenating the N-protected-2-iodomethylpyrrolidine to obtain N-protected-2-methylpyrrolidine.
 - 8. A compound made by the process of claims 1, 5, 7, and 9.
- 9. The compound of claim 8, wherein the compound is further treated to obtain a compound useful for modulating a histamine-3 receptor.
 - 10. A compound of the formula (VIII):

(VIII)

wherein * denotes a chiral center that can be designated as a R- or S-steroecenter, and R_1 is a nitrogen protecting group.